

Appl. No. Unassigned  
Amd. dated March 24, 2005  
Preliminary amd.

**AMENDMENTS TO CLAIMS:**

1. (Original) A dental unit water line (DUWL) monitoring and maintenance apparatus, for monitoring a DUWL, the apparatus comprising:

cleansing means attached to the DUWL for cleansing the fluid passing therethrough;

control means for controlling the cleansing means of the water line;

monitoring means for monitoring the operation of the dental unit by a dental surgeon in use and storing data related to that operation; and

a timer for timing and recording data relating to both periods of dental unit activity and inactivity, wherein, in use, the control means operates to receive data from the monitoring means and the timer and, based upon that data and reference data controls the operation of the pump associated with the water line to control flow of fluid through that DUWL and controls the cleanser to control the overall cleansing procedures associated with both the dental unit and associated DUWL.

2. (Original) An apparatus according to claim 1, wherein the monitoring means monitors the types of tools being used by the dentist and which are associated with the dental unit.

3. (Currently Amended) An apparatus according to claim 2, wherein the monitoring means provides data related to the duration of use of each of ~~these~~ the tools.

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4. (Currently Amended) An apparatus according to claim 1 ~~any of claims 1 to 3~~, wherein the control ~~unit~~ means controls the pump to operate automatically if it detects a certain period of inactivity by reference to the monitoring unit data and timer data.

5. (Currently Amended) An apparatus according to ~~any preceding claim 1~~, wherein the control ~~unit~~ means monitors the operation of the cleansing unit to determine the level of any cleansing fluid being used by the cleansing unit.

6. (Currently Amended) An apparatus according to claim 1 ~~any of claims 1 to 5~~, wherein the cleansing ~~unit~~ means comprise an electrochemical device and the control unit monitors the output of the device to determine when electrodes associated with the device need replacement.

7. (Currently Amended) An apparatus according to claim 1 ~~any preceding claim~~, wherein the control ~~unit~~ means is configured to provide an audio or visual warning to the dentist should any feature of the dental unit be determined to be operating incorrectly or if it is determined that any specific non-routine maintenance procedure is required.

8. (Currently Amended) An apparatus according to claim 1 ~~any preceding claim~~, wherein the control ~~unit~~ means is configured to prevent operation unless a certain sequence of maintenance procedures are first implemented by a user.

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9. (Currently Amended) An apparatus according to claim 1 ~~any of the preceding claims~~, further comprising an ion exchange unit.

10. (New) A dental unit water line (DUWL) monitoring and maintenance apparatus, for monitoring a DUWL, the apparatus comprising:

cleansing means attached to the DUWL for cleansing the fluid passing therethrough;

control means for controlling the cleansing means of the water line;

monitoring means for monitoring the operation of the dental unit by a dental surgeon in use and storing data related to that operation, wherein the monitoring means monitors the types of tools being used by the dentist and which are associated with the dental unit; and

a timer for timing and recording data relating to both periods of dental unit activity and inactivity, wherein, in use, the control means operates to receive data from the monitoring means and the timer and, based upon that data and reference data controls the operation of the pump associated with the water line to control flow of fluid through that DUWL and controls the cleanser to control the overall cleansing procedures associated with both the dental unit and associated DUWL.

11. (New) An apparatus according to claim10, wherein the monitoring means provides data related to the duration of use of each of the tools.

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12. (New) An apparatus according to any of claims 10, wherein the control means controls the pump to operate automatically if it detects a certain period of inactivity by reference to the monitoring unit data and timer data.
13. (New) An apparatus according to claim 10, wherein the control means monitors the operation of the cleansing unit to determine the level of any cleansing fluid being used by the cleansing unit.
14. (New) An apparatus according to claim 10, wherein the cleansing means comprise an electrochemical device and the control unit monitors the output of the device to determine when electrodes associated with the device need replacement.
15. (New) An apparatus according to claim 10, wherein the control means is configured to provide an audio or visual warning to the dentist should any feature of the dental unit be determined to be operating incorrectly or if it is determined that any specific non-routine maintenance procedure is required.
16. (New) An apparatus according to claim 10, wherein the control means is configured to prevent operation unless a certain sequence of maintenance procedures are first implemented by a user.
17. (New) An apparatus according to claim 10, further comprising an ion exchange unit.

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18. (New) A dental unit water line (DUWL) monitoring and maintenance apparatus, for monitoring a DUWL, the apparatus comprising:

cleansing means attached to the DUWL for cleansing the fluid passing therethrough;

control means for controlling the cleansing means of the water line;

monitoring means for monitoring the operation of the dental unit by a dental surgeon in use and storing data related to that operation, wherein the monitoring means monitors the types of tools being used by the dentist and which are associated with the dental unit and the monitoring means provides data related to the duration of use of each of the tools; and

a timer for timing and recording data relating to both periods of dental unit activity and inactivity, wherein, in use, the control means operates to receive data from the monitoring means and the timer and, based upon that data and reference data controls the operation of the pump associated with the water line to control flow of fluid through that DUWL and controls the cleanser to control the overall cleansing procedures associated with both the dental unit and associated DUWL.

19. (New) An apparatus according to claim 18, further comprising an ion exchange unit.

20. (New) An apparatus according to claim 18, wherein the cleansing means comprise an electrochemical device and the control unit monitors the output of the device to determine when electrodes associated with the device need replacement.